a device configured to identify IP packets and ATM cells in the streams of input data;

an IP packet forwarding facility for directing the identified IP packets to the output ports based on the address information contained in the IP packets; and

an ATM cell forwarding facility for directing the identified ATM cells to the output ports based on the address information contained in the ATM cells; and

a multiplexer positioned at a selected one of the output ports to multiplex output data from multiple tributaries into a single output data stream.

REMARKS

In the non-final Office Action, the Examiner rejects claims 1-3, 6-11, 13-15, 19, and 20 under 35 U.S.C. § 102(e) as anticipated by LEA (U.S. Patent No. 6,115,373); rejects claims 5, 12, and 17 under 35 U.S.C. § 103(a) as unpatentable over LEA in view of CIVANLAR et al. (U.S. Patent No. 5,828,844); and objects to claims 16 and 18 as containing allowable subject matter. Applicant traverses the rejections under 35 U.S.C. §§ 102(e) and 103(a).

By way of the present Amendment, Applicant amends claims 1, 5, 8, 11, 12, 14, 16, and 18. Claims 1-3 and 5-20 remain pending.

Applicant filed an Information Disclosure Statement on December 10, 2002 that included one document, namely Australian Patent Application No. AU-A-48511/97. The Examiner, however, failed to consider this document. Applicant respectfully requests

that the Examiner properly consider this document, initial the attached Form-1449, and return a copy of the initialed Form-1449 to Applicant.

Applicant notes with appreciation the indication that claims 16 and 18 would be allowable if rewritten in independent form to include the features of the base claim and any intervening claims. By way of this amendment, Applicant amends claims 16 and 18 into independent form. Accordingly, Applicant submits that claims 16 and 18 are allowable over the art of record.

In the Office Action, the Examiner rejects claims 1-3, 6-11, 13-15, 19, and 20 under 35 U.S.C. § 102(e) as allegedly anticipated by LEA. Applicant respectfully traverses this rejection.

LEA is directed to an information network architecture that can handle ATM and IP traffic (Abstract).

In contrast, Applicant's amended claim 1 recites an input interface configured to receive a non-ATM data stream from a single port, identify ATM cells and IP packets within the non-ATM data stream, and forward the ATM cells and IP packets; an IP packet forwarding facility configured to receive IP packets from the input interface, and forward the IP packets toward their destinations; and an ATM cell switching facility configured to receive ATM cells from the input interface, and switch the ATM cells toward their destinations. LEA does not disclose this combination of features.

For example, LEA does not disclose an input interface that is configured to receive a non-ATM data stream from a single port and identify ATM cells and IP packets within the non-ATM data stream. To the contrary, LEA discloses the transmission of ATM cells and IP cells over a link (Fig. 2, col. 3, lines 59-62). One skilled in the art

would appreciate that the link is an ATM link. See also, col. 6, lines 19-32, of LEA that discloses that the transmission of IP traffic can take advantage of ATM signaling for congestion control, which further supports the position that the ATM cells and IP cells are transmitted over an ATM link in LEA. LEA does not disclose or suggest an input interface that is configured to receive a non-ATM data stream from a single port and identify ATM cells and IP packets within the non-ATM data stream, as recited in claim 1.

For at least the foregoing reasons, Applicant submits that claim 1 is not anticipated by LEA.

Claims 2, 3, 6, and 7 depend from claim 1. Therefore, Applicant submits that these claims are not anticipated by LEA for at least the reasons given above with respect to claim 1.

Amended independent claims 8, 11, and 14 recite features similar to the one described above with respect to claim 1. Accordingly, Applicant submits that claims 8, 11, and 14 are not anticipated by LEA for reasons similar to those given above with respect to claim 1.

Claims 9 and 10 depend from claim 8. Therefore, Applicant submits that these claims are not anticipated by LEA for at least the reasons given above with respect to claim 8.

Claim 13 depends from claim 11. Therefore, Applicant submits that this claim is not anticipated by LEA for at least the reasons given above with respect to claim 11.

Claims 15, 19, and 20 depend from claim 14. Therefore, Applicant submits that these claims are not anticipated by LEA for at least the reasons given above with respect to claim 14.

Claims 5, 12, and 17 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over LEA in view of CIVANLAR et al. Applicant respectfully traverses this rejection.

CIVANLAR et al. is directed to a network that includes a group of IP switches for addressing and routing data in accordance with an Internet protocol and an ATM protocol (Abstract).

Claims 5, 12, and 17 depend from claims 1, 11, and 14, respectively. Applicant submits that the disclosure of CIVANLAR et al. does not remedy the deficiencies in the disclosure of LEA set forth above with respect to claims 1, 11, and 14. Therefore, Applicant submits that claims 5, 12, and 17 are patentable over LEA and CIVANLAR et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claims 1, 11, and 14. Moreover, these claims are patentable over LEA and CIVANLAR et al. for reasons of their own.

For example, claim 5 recites that the non-ATM data stream includes synchronous optical network (SONET) frames and wherein the device further comprises a SONET deframer for deframing the SONET frames in the non-ATM data stream. The Examiner admits that LEA does not disclose these features and relies on col. 5, lines 47-54, of CIVANLAR et al. for allegedly disclosing the features of claim 5 (Office Action, pg. 4). Applicant submits that this section of CIVANLAR et al. does not disclose or suggest the features of claim 5.

Col. 5, lines 47-54, of CIVANLAR et al. discloses:

> Such an ATM backbone network may employ IP switches since IP switching is optimized for IP routing over an ATM network and thus represents a near ideal switch for the Internet backbone. If IP switching

> were to be employed in the current Internet, the legacy routers currently employed would be upgraded to IP switches, which, with backbone facilities running the ATM protocol, can operate at rates up to an OC12.

Despite the Examiner's allegation, this section of CIVANLAR et al. in no way discloses or suggests that a non-ATM data stream includes SONET frames. In fact, neither this section of CIVANLAR et al. nor the remainder of CIVANLAR et al. discloses or suggests the transmission of SONET frames, as recited in claim 5.

For at least these additional reasons, Applicant submits that claim 5 is patentable over LEA and CIVANLAR et al., whether taken alone or in any reasonable combination.

Claim 12 recites features similar to those given above with respect to claim 5. Therefore, Applicant submits that claim 12 is patentable over LEA and CIVANLAR et al., whether taken alone or in any reasonable combination, for reasons similar to those given above with respect to claim 5.

Claim 17 recites that the input data is received as an OC-48 data stream. The Examiner admits that LEA and CIVANLAR et al. do not disclose this feature and alleges that "[a] skilled artisan would have been motivated to select OC-48 (or any OC level) of signal frame depending on requirement of a real situation" (Office Action, pg. 4).

The three basic criteria for establishing a *prima facie* case of obviousness are articulated in M.P.E.P. § 2142. First, there must be some suggestion or motivation, either in the reference(s) themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. Applicant submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 17. LEA and

CIVANLAR et al. do not disclose or suggest input data being received as an OC-48 data stream. The Examiner's statement that OC-48 could have been selected "depending on requirement of a real situation" is merely conclusory and is insufficient for establishing a *prima facie* case of obviousness.

For at least these additional reasons, Applicant submits that claim 17 is patentable over LEA and CIVANLAR et al., whether taken alone or in any reasonable combination.

In view of the foregoing amendment and remarks, Applicant respectfully requests the Examiner's reconsideration of this application, and the timely allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectively submitted,

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ATTACHMENT SHOWING CHANGES MADE

IN THE CLAIMS:

Claims 1, 5, 8, 11, 12, 14, 16, and 18 have been amended as follows:

1. (Twice Amended) A device for directing data toward destinations, comprising:

an input interface configured to:

receive a non-Asynchronous Transfer Mode (ATM) data stream from a single port,

identify [Asynchronous Transfer Mode (ATM)] ATM cells and Internet Protocol (IP) packets within the non-ATM data stream, and

forward the ATM cells and IP packets;

an IP packet forwarding facility configured to:

receive IP packets from the input interface, and

forward the IP packets toward their destinations; and

an ATM cell switching facility configured to:

receive ATM cells from the input interface, and

switch the ATM cells toward their destinations.

5. (Twice Amended) The device of claim 1 wherein the non-ATM data stream includes synchronous optical network (SONET) frames and wherein the device further comprises a SONET deframer for deframing the SONET frames in the non-ATM data stream.

8. (Twice Amended) An apparatus for directing input toward destinations, comprising:

input ports for receiving data streams, at least one of the data streams being a non-Asynchronous Transfer Mode (ATM) data stream;

output ports for outputting data units; and

a director coupled to a selected one of the input ports and configured to:

identify layer 2 data units and layer 3 data units in [a] the at least one non-ATM data stream received at the selected input port,

direct layer 2 data units encapsulated by an OSI layer 2 protocol to the output ports based on address information in the layer 2 data units, and

direct layer 3 data units encapsulated by an OSI layer 3 protocol to the output ports based on address information in the layer 3 data units.

11. (Twice Amended) In a device for directing input data traffic received on input ports to output ports, a method comprising:

receiving a non-Asynchronous Transfer Mode (ATM) data stream at one of the input ports;

identifying Internet Protocol (IP) packets and [Asynchronous Transfer Mode (ATM)] ATM cells in the received non-ATM data stream;

directing an identified IP packet that is received on the one input port to at least one of the output ports based on an IP lookup operation; and

directing an identified ATM cell that is received on the one input port to at least one of the output ports based on an ATM lookup operation.

12. (Twice Amended) The method of claim 11 wherein the device includes a Synchronous Optical Network (SONET) deframer and wherein the SONET deframer is used to deframe any SONET frames in the non-ATM data stream received at the one input port.

14. (Twice Amended) A device for directing both Internet Protocol (IP) packets containing address information identifying destinations and Asynchronous Transfer Mode (ATM) cells containing address information identifying destination toward their destinations, comprising:

input ports for receiving streams of input data, at least one of the streams of input data including a non-ATM stream of input data;

output ports for outputting streams of data;

line cards for directing input data received at the input ports to the output ports, each said line card including:

a device configured to identify IP packets and ATM cells in the streams of input data;

an IP packet forwarding facility for directing the identified IP packets to the output ports based on the address information contained in the IP packets; and

an ATM cell forwarding facility for directing the identified ATM cells to the output ports based on the address information contained in the ATM cells.

16. (Amended) [The device of claim 14 further comprising] A device for directing both Internet Protocol (IP) packets containing address information identifying destinations and Asynchronous Transfer Mode (ATM) cells containing address information identifying destination toward their destinations, comprising:

input ports for receiving streams of input data;

output ports for outputting streams of data;

line cards for directing input data received at the input ports to the output ports, each said line card including:

a device configured to identify IP packets and ATM cells in the streams of input data;

an IP packet forwarding facility for directing the identified IP packets to the output ports based on the address information contained in the IP packets; and

an ATM cell forwarding facility for directing the identified ATM cells to the output ports based on the address information contained in the ATM cells; and

a multiplexer positioned before a select one of the input ports to multiplex multiple data streams into a single input data stream.

18. (Amended) [The device of claim 14 further comprising] A device for directing both Internet Protocol (IP) packets containing address information identifying destinations and Asynchronous Transfer Mode (ATM) cells containing address information identifying destination toward their destinations, comprising:

input ports for receiving streams of input data;

output ports for outputting streams of data;

line cards for directing input data received at the input ports to the output ports, each said line card including:

a device configured to identify IP packets and ATM cells in the streams of input data;

an IP packet forwarding facility for directing the identified IP packets to the output ports based on the address information contained in the IP packets; and

an ATM cell forwarding facility for directing the identified ATM cells to the output ports based on the address information contained in the ATM cells; and

a multiplexer positioned at a selected one of the output ports to multiplex output data from multiple tributaries into a single output data stream.

INFORMATION DISCLOSURE CITATION

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APPLICANT(S)	
Steven R. WILLIS	
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	AU-A-48511/97	06/25/98	Australia				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).